

U.S. Application Serial No. 10/603,279
Office Action Mailed May 31, 2006
Amendment in response filed on October 31, 2006

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CLAIM AMENDMENTS

The following listing of the Claims replaces all previous versions of the Claims.

1. (Currently Amended) A method for ~~reducing the level of removing~~ asparagine or ~~converting asparagine to a different substance~~ in a corn-based food material ~~to a level of asparagine that is less than the level of asparagine in a substantially similar corn-based food material processed in a similar manner without an asparagine-reducing enzyme~~, comprising adding the asparagine-reducing enzyme to the food material before heating.
2. (Original) The method of claim 1, wherein said asparagine-reducing enzyme is asparaginase.
3. (Currently Amended) The method of claim 1, wherein at least about 10% of the asparagine is converted to a different substance or removed. ~~the level of asparagine is reduced by at least about 10%.~~
4. (Original) The method of claim 1, wherein said asparagine-reducing enzyme is an enzyme capable of hydrolyzing the amide group of free asparagine.
5. (Currently Amended) A method for ~~reducing the level of removing~~ asparagine or ~~converting asparagine to a different substance~~ in a corn-based food material ~~to a level of asparagine that is less than the level of asparagine in a substantially similar corn-based food material processed in a similar manner without an asparagine-reducing enzyme~~, comprising:
 - (1) adding the asparagine-reducing enzyme to the corn-based food material, wherein said corn based food material comprises asparagine;
 - (2) optionally mixing the enzyme with the corn based food material;
 - (3) allowing a sufficient time for the enzyme to react with the asparagine; and
 - (4) optionally deactivating or optionally removing the enzyme.
6. (Canceled)
7. (Canceled)
8. (Previously Presented) The method of claim 5, wherein said asparagine-reducing enzyme is asparaginase.
9. (Previously Presented) The method of claim 5, wherein said asparagine-reducing enzyme is an enzyme capable of hydrolyzing the amide group of free asparagine.
10. (Currently Amended) A method for reducing the level of acrylamide in a heated corn-based food products ~~to a level of acrylamide that is less than the level of acrylamide in a substantially similar corn-based food product processed in a similar manner without an asparagine-reducing enzyme~~, comprising:

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- (1) adding the asparagine-reducing enzyme to a corn-based food material, wherein said corn-based food material comprises asparagine;
- (2) optionally mixing the enzyme with the corn-based food material;
- (3) allowing a sufficient time for the enzyme to react with the asparagine whereby at least a portion of the asparagine is removed or is converted to a different substance;
- (4) optionally deactivating or optionally removing the enzyme; and
- (5) heating the corn-based food material to form the finished heated corn-based food product.

11. (Currently Amended) A The corn-based food material prepared according to the method of claim 1, wherein at least about 10% of the asparagine is converted to a different substance or is removed. the level of asparagine in said corn-based food material is reduced by at least about 10%.

12. (Currently Amended) A The corn-based food material prepared according to the method of claim 11, wherein at least about 30% of the asparagine is converted to a different substance or is removed. the level of asparagine in said corn-based food material is reduced by at least about 30%.

13. (Currently Amended) A The corn-based food material prepared according to the method of claim 12, wherein at least about 50% of the asparagine is converted to a different substance or is removed. the level of asparagine in said corn-based food material is reduced by at least about 50%.

14. (Currently Amended) A The corn-based food material prepared according to the method of claim 13, wherein at least about 70% of the asparagine is converted to a different substance or is removed. the level of asparagine in said corn-based food material is reduced by at least about 70%.

15. (Currently Amended) A The corn-based food material prepared according to the method of claim 14, wherein at least about 90% of the asparagine is converted to a different substance or is removed. the level of asparagine in said corn-based food material is reduced by at least about 90%.

16 - 20 (Canceled)

21 - 25 (Canceled)

26 - 40 (Canceled)

41. (Currently Amended) An article of commerce comprising:

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- (a) a corn-based food product according to claim 11, wherein said corn-based food product has a level of acrylamide that is less than the level of acrylamide in a substantially similar corn-based food product processed in a similar manner without an asparagine-reducing enzyme;
 - (b) heating the corn-based food product to form acrylamide from at least a portion of the asparagine that is not removed or converted to a different substance;
 - (bc) a container for containing the heated corn-based food product; and
 - (ed) a message associated with the container;
wherein said message associated with the container informs a the consumer that the corn-based food product contains a reduced level of acrylamide.
42. (Original) The article of claim 41, wherein said message informs the consumer that the corn-based food product is low in acrylamide.
43. (Currently Amended) An article of commerce comprising:
- (a) a corn-based food product according to claim 11, wherein said corn-based food product has a reduced level of asparagine that is less than the level of asparagine in a substantially similar corn-based food product processed in a similar manner without an asparagine-reducing enzyme;
 - (b) a container for containing the corn-based food product; and
 - (c) a message associated with the container;
wherein said message associated with the container informs a the consumer that at least about 10% of the asparagine in the corn based food product has been converted to a different substance or removed, the corn-based food product contains a reduced level of asparagine.
44. (Original) The article of claim 43, wherein said message informs the consumer that the corn-based food product is low in asparagine.

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